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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THOMAS, ASHISH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/727,993	Applicant(s) SHIKATA, YUKIKO	
	Examiner ASHISH K. THOMAS	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/17/2008 have been fully considered but they are not persuasive.

2. The Applicant argues that the Murakami reference does not teach the registration date storing device stated in claim 1 (page 2 of the remarks). More specifically, the Applicant asserts that the phrase "at a timing designated by the user" in the Murakami reference does not suggest a registration date storing device (page 3 of the remarks). The Applicant further states that "the allegations in the grounds of rejection that Murakami inherently teaches the storage of a latest date of warning are unsupported."

In response, the Examiner respectfully disagrees with the Applicant. Column 9, lines 42-49 of Murakami teaches that consumable status can be returned to a host computer "periodically or continuously" or "at a timing designated by the user." From this portion of the reference, it is evident that the user has the ability to determine the timing, whether it be just once, once a week, once a day, or any other time interval he/she desires. Indeed, the concept of updating once a day is not explicitly taught in the reference, but this concept is clearly implied in the reference. The basis for this is that the user is given the choice to determine the timing he/she prefers. In view of this, the Examiner firmly believes that Murakami inherently teaches the storage of a latest date of warning; such a storage is needed under a situation wherein the user designated the status updates to occur once in a day.

3. In page 5, paragraphs 2 and 3 of the remarks, the Applicant contends that there is no reason for a person of ordinary skill in the art to combine Murakami and Haines. The Applicant argues that Haines teaches providing inventory status of a plurality of image consumables in not just one printer, but in a plurality of printers. The Applicant argues that the "the technology disclosed in Haines is suited for managers" whereas the present invention is suited for general individuals since it only displays the status of a plurality of consumables used for a single printer.

In response, the Examiner respectfully disagrees with the Applicant here. Note that the Murakami teaches all that that is claimed in the independent claims, except the status of a plurality of consumables in a single printer. Haines, as correctly pointed out by the Applicant, teaches this. Indeed, Haines not only teaches acquiring the status of a plurality of consumables in one printer, but Haines teaches doing this for a plurality of printers as well. However, note that the fact that Haines discusses a plurality of printers should not render the combination of Murakami and Haines unobvious. After all, both Haines and Murakami achieve the same purpose-keeping track of consumables in a printing system. In view of this, it would have been obvious for one of ordinary skill in the art to combine the two references.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 2, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami(U.S. 6,995,858) in view of Haines(U.S. 6,370,341).

Regarding claim 1, Murakami discloses a print control apparatus comprising: an information obtaining device which obtains from a printer, information regarding a consumed level of a consumable item every predetermined period of time; **(Column 7, lines 56-63 details that non-volatile memory 33 obtains toner consumption data.)** a receiving device which selectively receives a setting from a user in which a notice that the consumed level of the consumable item is in advanced stage is limited to once within a predetermined period of time; **(Column 9, lines 43-48 teaches that a user can set the frequency of notices. Therefore, it is implied in this reference that a user can set the notice to be once within a time interval)** a notifying device which notifies the user that the consumed level of the consumable item is in advanced stage; **(Column 9, lines 27-33 teaches a display unit that displays a warning. This inherently teaches the existence of the notifying device stated in the claim language. Otherwise, a warning cannot be properly displayed.)** a determining device which determines whether or not the user is notified of an advanced consumed level of the consumable item whose consumed level is found to be in advanced stage according to said information regarding the consumed level; **(Column 9, lines 32-39 teaches a method that determines if a low status flag has been generated and conveyed to the user.)** a printer information storing device, which stores a previous

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status for the consumable item, wherein the previous status indicates whether a respective consumable item is in a status where replacement is recommended(**Column 9, lines 15-50 teaches the ability to check the status and returning a warning message to a user, the warning message displayed in accordance with frequency set by the user. All this implies the existence of the printer information storing device.**); a registration date storing device, which stores regarding the consumable item, a latest date when a warning notice is given to the user regarding the respective consumable item; (**Column 9, lines 43-48 details the ability to warn periodically based on the user settings. This inherently teaches the storage of latest date of warning. Otherwise, it would be impossible to give periodic warnings in accordance with the user settings.**) wherein, when the consumable item whose consumed level is found to be in advanced stage does not have a setting that the notice as to advanced consumed level is limited to once within the predetermined period of time, then said determining device determines that the user is notified of the advanced consumed level. (**The Examiner is interpreting this portion of the claim language to merely mean that a user is notified of the advanced consumed level even without setting any type of time interval for notices. Note that column 9, line 47 teaches that a warning notice is displayed continuously as well. The ability to display continuously is a situation wherein a display is not based on a set frequency.**) wherein, when the consumable item whose consumed level is found to be in advanced stage has a setting that the notice as to advanced consumed level is limited to once within the predetermined period of time, and said notice as to advanced

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consumed level of the consumable item has not been given to the user within said predetermined period of time, then said determining device determines that the user is notified of the advanced consumed level; **(The Examiner is interpreting this portion of the claim language to simply mean that a notice is given once during the set period. And this is precisely taught in column 9, lines 40-48 of the reference. The type of determining device stated in the claim language is implied in the cited portion of the reference. After all, if no determination device is present, then it would not be possible to accurately maintain the warnings on a timely basis.)** wherein when the consumable item whose consumed level is found to be in advanced stage has a setting that the notice as to advanced consumed level is limited to once within the predetermined period of time, and said notice as to advanced consumed level of the consumable item has already been given to the user within said predetermined period of time, said determining device determines that the user is not notified of the advanced consumed level. **(The Examiner is interpreting the claim language to merely mean that a warning is issued only once during the predetermined interval and nothing more. This concept is taught in column 9, lines 40-48.)** wherein the information obtaining device obtains information regarding whether or not a status of consumable item is in a status where replacement is recommended;**(Column 9, lines 15-40 details the ability to detect low toner state of serious level.)** wherein the receiving device receives a setting regarding the consumable item; **(Column 9, lines 43-48 teaches that a user can set the frequency of notices. This implies the existence of the receiving device.)** wherein, if previously obtained information

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regarding the consumable item is not in a status where replacement is recommend and currently obtained information regarding the consumable item is in a status where replacement is recommended, then the determining device determines a notice of an advanced consumed level of the consumable item; **(The examiner is interpreting this**

claim limitation to merely mean that a notice is generated if the level of consumable is low. And such a notice is detailed in column 9, lines 40-48)

wherein the determining device determines not to notify the user of an advanced consumed level of the plurality of consumable items if: previously obtained information regarding the consumable item and currently obtained information regarding the consumable item indicates no difference in status of the of the consumable item, and currently obtained information regarding the consumable item indicates that at least a consumable item is in a status where replacement is recommended, and the consumable item has a setting in which a notice that the consumed level of the respective consumable item is in advanced stage is limited to once within the predetermined period of time, and a latest date stored in the registration date storing device regarding the consumable item is within predetermined period of time; **(The examiner is interpreting these claim limitations to mean that a status notice is not sent to the user if there is no indication of low level of consumable item and that a status notice is still not sent to the user despite the indication of a low level of consumable if a status notice was sent within the predetermined frequency.**

Column 9, lines 32-39 teaches a method that determines if a low status flag needs to be generated. This inherently teaches the concept of not sending a status

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notice to user if a low consumable status is not detected. Furthermore, column 9, lines 40-48 teaches the concept of notifying the low status to the user in a predetermined frequency. This inherently teaches the concept of not sending the status notice to a user if a status notice was sent within the predetermined time period.)wherein the determining device determines to notify the user of an advanced consumed level of the consumable item if: previously obtained information regarding the consumable item and currently obtained information regarding the consumable item indicates no difference in the status of the consumable item; and currently obtained information regarding the consumable item indicates that the consumable item is in a status where replacement is recommended; and the consumable item has a setting in which a notice that the consumed level of the respective consumable item is in advanced stage is limited to once within the predetermined period of time, and a latest date stored in the registration data storing device regarding the consumable item is not within the predetermined period of time, wherein the notifying device notifies the user of consumable item in a status where replacement is recommended, regardless of whether the respective consumable item in a status where replacement is recommended having a setting in which a notice that the consumed level of the respective consumable item is in advanced stage is limited to once within the predetermined period of time. **(The examiner is interpreting this claim limitation to mean that a status notice is actually sent to a user when the determination is made that there is a low consumable and that another status notice was not sent within the predetermined amount of time. As stated before, column 9, lines 32-39**

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teaches the concept of determining if there is a low amount of consumable. And Column 9, lines 40-48 teaches the concept of sending status notices to a user based on the predetermined frequency. Furthermore, Column 10, lines 20-40 teaches that time and date, with respect to the consumable amount, are also monitored.)

Yet, the Murakami reference only teaches the concept of detecting the usage status of one type of consumable. It does not teach the concept of displaying a status notice that pertains to a plurality of consumables.

Haines, on the other hand, teaches that a status notice with respect to a plurality of consumables is displayed to the user. **(Figure 6)**

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Murakami and Haines to fully put forth the apparatus claimed in claim 1.

The motivation behind this modification is to put forth a comprehensive system that monitors all the consumables. This, in turn, would reduce potential errors.

Murakami and Haines are combinable because both references teach the concept of keeping track of consumables in a printing environment.

Regarding claim 2, Murakami divulges a printer control unit according to claim 1, wherein, said predetermined period of time is one day**(As stated before, column 9, lines 44-47 teaches that the user can set the timing. This, in turn, inherently teaches that a user could possibly set the period of time to be one day.)**, and said determining device stores a date when the notice is given to the user, if the setting is

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such that the notice as to advanced consumed level regarding the consumable item whose consumed level is in advanced stage, is limited to once within said predetermined period of time. (**Column 9, lines 44-47**)

Regarding claim 5, it is rejected in the same manner as claim 1. Note that claim 5 cites a medium storing a computer program that corresponds to the functionalities cited in claim 1.

Regarding claim 6, it is rejected in the same manner as claim 2. Note that claim 6 cites a medium storing a computer program that corresponds to the functionalities cited in claim 2.

Regarding claim 4, Haines further teaches a printer control unit wherein said printer is provided with plural types of consumable items(**Figure 6 teaches the existence of a plurality of consumables.**), wherein said information obtaining device obtains information regarding a consumed level per consumable item from said printer(**Figure 6 teaches a status report that pertains to a plurality of consumables.**), And Murakami teaches that the receiving device selectively receives per consumable item a setting that the notice as to advanced consumed level of the consumable item is limited to once within the predetermined period of time. (**Column 9, lines 40-48**)

Regarding claim 7, it is rejected in the same manner as claim 4. Note that claim 7 cites a medium storing a computer program that corresponds to the functionalities cited in claim 4.

Regarding claim 8, Murakami further divulges a display device that displays a warning screen. **(Column 9, lines 27-33 teaches a display unit that displays a warning.** And Haines teaches a plurality of consumable items. **(Figure 6)**

Regarding claim 9, Haines further teaches that the warning screen indicates that replacement is recommended for all consumable items in advanced stage. **(Figure 6 illustrates all the consumables that are low in supply.)**

Regarding claim 10, Murakami further teaches that a warning screen is displayed regardless of a warning notice setting. **(Note that column 9, lines 45-48 teaches that a warning is displayed continuously or at time intervals indicated by the user.** The ability to display continuously therefore reads on claim 10 since the user input is not needed for this type of display.)

Regarding claim 14, it is rejected in the same manner as claim 8. Please note that claim 14 discusses a recording medium with a computer program that corresponds to the functionalities detailed in claim 8.

Regarding claim 15, it is rejected in the same manner as claim 9. Please note that claim 15 discusses a recording medium with a computer program that corresponds to the functionalities detailed in claim 9.

Regarding claim 16, it is rejected in the same manner as claim 10. Please note that claim 16 discusses a recording medium with a computer program that corresponds to the functionalities detailed in claim 10.

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5. **Claims 3 is** rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami(U.S. 6,995,858) in view of Haines(U.S. 6,370,341) and further in view of Phillips(U.S. 2002/0186406).

Regarding claim 3, the previously established Murakami and Haines combination fully teaches the subject matter stated in claim 1.

But this combination is silent on a printer control unit wherein said receiving device further selectively receives a setting that the notice as to the advanced consumed level is not given and a setting that the notice as to advanced consumed level is given without limiting the number of times.

Phillips teaches a printer control unit wherein said receiving device further selectively receives a setting that the notice as to the advanced consumed level is not given and a setting that the notice as to advanced consumed level is given without limiting the number of times. **(Paragraph 23 of the Phillips reference divulges a scenario wherein the user is warned without setting any type of limits on the number of warnings. Furthermore, paragraph 27 teaches a scenario wherein an order is placed without warning the user; this reads on the concept of not giving a notice.)**

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Murakami and Haines with Phillips to fully realize the subject matter claimed in claim 3.

The motivation is to devise a method that will successfully convey to the user that a consumable is low. The rate of success is increased by not setting a limit on the

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number of warnings because this will give the user more opportunities to view the warnings.

6. Claims 11-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami(U.S. 6,995,858) in view of Haines(U.S. 6,370,341) and further in view of Ulrich(U.S. 2005/0151641).

Regarding claim 11, the aforementioned combination of Murakami and Haines teaches the subject matter cited in claim 8.

But Murakami and Haines fail to explicitly cite that the warning screen comprises a close button, and wherein a date and a time are registered if the user closes the warning screen via said close button.

Ulrich, on the other hand, cites that the warning screen comprises a close button, and wherein a date and a time are registered if the user closes the warning screen via said close button. **(Paragraph 41 of Ulrich teaches a scenario wherein an alert signal is shown on a pop-up window. A user has the ability to close this window, and the closing time is registered.)**

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Murakami and Haines with Ulrich to put forth the subject matter detailed in claim 11.

The motivation is to output warning signals based on certain user inputs such as closing a previous warning screen. This way, user actions are incorporated in the warning display process.

Regarding claim 12, the combination of Murakami, Haines, and Ulrich teaches the subject matter mentioned in claim 11. Ulrich further teaches that date and time are only registered if the user closes the warning screen via said close button. **(Paragraph 41 of Ulrich clearly teaches that an alert acknowledgment time is only registered when the user closes the alert pop-up window.)**

Regarding claim 13, the combination of Murakami, Haines, and Ulrich teaches the subject matter detailed in claim 12. Furthermore, Murakami discloses that if a date and time are not registered within the predetermined period of time, then the display device displays the warning screen again. **(As stated previously, column 9, lines 40-48 divulges that a notice could be displayed again and again.)**

Regarding claim 17, it is rejected in the same manner as claim 11. Note that claim 17 describes a recording medium that stores a computer program which corresponds to the functionalities mentioned in claim 11.

Regarding claim 18, it is rejected in the same manner as claim 12. Note that claim 18 describes a recording medium that stores a computer program which corresponds to the functionalities mentioned in claim 12.

Regarding claim 19, it is rejected in the same manner as claim 13. Note that claim 19 describes a recording medium that stores a computer program which corresponds to the functionalities mentioned in claim 13.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHISH K. THOMAS whose telephone number is (571)272-0631. The examiner can normally be reached on 9:00 a.m. - 5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ashish K Thomas/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625